

CLAIMS

1. A filter for upgrading raw water, wherein gravity forces water through said filter seeping from an upper compartment into a lower compartment and wherein said raw water follows a vertical meandering path interact with reactants filling said filter, said filter comprising:

- concentric crevices filled with a set of reactants, and
- a porous receptacle for a capsule disposed at the bottom of said filter, draining upgraded water from said filter.

2. A filter for upgrading raw water as in claim 1, and wherein said set of reactants comprise:

- activated carbon;
- a weak anion exchanger;
- a weak cation exchanger, and
- a binder for binding all said reactants.

3. A filter for upgrading raw water as in claim 2, and wherein said binder is an item selected from the group consisting of water soluble and water insoluble binders.

4. A device for upgrading raw water by filtering out intrinsic factors of said raw water and by adding at least one extrinsic factor, wherein

said raw water stored in an upper water compartment are trained through a filter, to be collected as upgraded water in a lower water compartment, to be further drained by a spout.

5 5. A device as in claim 4 and wherein said at least one extrinsic factor is delivered by a capsule disposed in a receptacle attached to the bottom of said filter and wherein said capsule is enveloped.

10 6. A device as in claim 4 and wherein said at least one extrinsic factor is delivered by a capsule attached to the bottom of said filter wherein said capsule is a gel including channels for releasing intercalated extrinsic factors.

15 7. A device as described in claim 5 wherein at least a portion of the walls of said capsule is permeable to water, and wherein said walls have at least one orifice for connecting the enveloped chamber of said capsule with said upgraded water.

20 8. A device as described in claim 5 wherein the envelope of said capsule is generally non permeable to water except for at least one orifice through which external water can penetrate and at least one loaded factor can be released to the upgraded water.

25 9. A device as described in claims, 8 wherein said at least one orifice is sealed by a protective removable patch.

10. A device as described in claim 8 and wherein said at least one orifice is sealed by a water soluble glue and wherein said glue is eliminated upon exposure to water.

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11. A device as described in claim 5 wherein the envelope of said capsule is generally non permeable except for at least one orifice, and wherein an inner capsule is disposed within said capsule a part of which inner capsule is permeable to water such that when immersed in water the inner capsule absorbs water and the inner capsule releases additives contained therein.

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12. A device as described in claim 5 wherein said capsule is at least partially permeable to soluble solutes to allow diffusion into said upgraded water.

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13. A device as in claim 4 wherein said at least one extrinsic factor is an item selected from the group consisting of minerals, vitamins and remedies and medicines.

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14. A device as in claim 4 wherein said at least one extrinsic factor is a combination of at least two extrinsic factors selected from the group consisting of mineral salts, vitamins, remedies and flavouring agents.

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15. A device as in claim 13 wherein said at least one extrinsic factor is an organic salt of metal ions selected from the group consisting of calcium, magnesium, selenium, zinc and other essential ions.

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16. A device as described in Claim 5 wherein the said extrinsic factor is disposed in said capsule in a form selected from the group containing compressed tablets, slurries and concentrated solutions.

10 17. A device as in claim 4 and wherein said at least one extrinsic factor is delivered by a capsule inserted in a receptacle attached to the bottom of said filter and wherein said capsule is discharged from a chambered magazine, passing through a channel on its way to said receptacle.

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18. A filter for upgrading raw water as in claim 1, and wherein said weak anion exchanger is chitosan.

20 19. A method for removing fouling agents from raw water wherein said water follows a vertical meandering path in which said water interacts with a mixture of reactants filling said filter and wherein said mixture comprises activated carbon, chitosan, a weak cation exchanger, and a binder for binding all said reactants.

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20. A method removing fouling agents from raw water as in claim 19, wherein beneficial factors are further supplied to said water, said method comprising:

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- collecting raw water in a chamber;
- filtering out intrinsic factors of said raw water to produce filtered water;
- interacting said upgraded water with a capsule containing at least one beneficial factor;
- liberating said at least a one beneficial factor into said filtered water, and
- collecting said water having interacted with said capsule in a chamber.

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